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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/842,763	04/27/2001	Kazuya Arakawa	0033-0718P	2824
2292	7590	05/19/2004	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH			O BRIEN, BARRY J	
PO BOX 747			ART UNIT	PAPER NUMBER
FALLS CHURCH, VA 22040-0747			2183	
DATE MAILED: 05/19/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/842,763	ARAKAWA ET AL. 
	<b>Examiner</b>	Art Unit
	Barry J. O'Brien	2183

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 27 April 2001 and 20 August 2001.

2a)  This action is FINAL.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## **Disposition of Claims**

4)  Claim(s) 1-8 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5)  Claim(s) \_\_\_\_\_ is/are allowed.  
6)  Claim(s) 1-8 is/are rejected.  
7)  Claim(s) \_\_\_\_\_ is/are objected to.  
8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3.  
4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_.

**DETAILED ACTION**

1. Claims 1-8 have been examined.

*Papers Submitted*

2. It is hereby acknowledged that the following papers have been received and placed on record in the file: Priority Papers as received on 4/27/2001 and IDS as received on 8/20/2001.

*Specification*

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

4. The applicant is requested to review the specification and update the status of all co-pending applications made mention of, replacing attorney docket numbers with current U.S. application or patent numbers when appropriate.

5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The current title is a general definition of the type of processor that the invention is an embodiment of. Please use a title that more clearly points out defining characteristics of the claimed invention.

*Claim Objections*

6. Claims 2-6 are objected to because of the following informalities:

- a. A series of singular dependent claims is permissible in which a dependent claim refers to a preceding claim which, in turn, refers to another preceding claim. A claim that depends from a dependent claim should not be separated by any claim that does not also depend from said dependent claim. It should be kept in mind that a dependent claim may refer to any preceding independent claim. In general, applicant's sequence will not be changed. See MPEP § 608.01(n). See claims 4-6, where claim 6 improperly depends on claim 4, while claim 5 depends on claim 2.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
8. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
9. Claim 1 recites the limitation, "to be circulated inside or output externally" on its tenth line. It is unclear what the packets are to be circulating inside or outside of. Please correct the claim language to more clearly define the metes and bounds of the invention. See also similar problems in claims 7 and 8.
10. Claim 1 also recites the limitation, "by a transfer request signal and a transfer acknowledge signal" on its fifth and sixth lines. It is unclear whether this limitation refers to the

method that the self-synchronous transfer control circuit controls transfer and operating processes, or relates to the data packet information. Please correct the claim language to more clearly define the metes and bounds of the invention. See also similar problems on lines 5-6 of both claims 7 and 8.

11. Claim 1 also recites the limitation, "at least one of said pipeline registers" on lines 11 and
12. There is insufficient antecedent basis for this limitation in the claim. Claim 1 only claims a single "pipeline register", not a plurality of pipeline registers. Please correct the claim language to provide the correct antecedent basis.
12. Because claims 2-6 incorporate the limitations of claim 1, claims 2-6 are also rejected for the same reasons as claim 1 as shown above.
13. Claim 4 recites the limitation, "a host transfer flag of input other data packet." This is not grammatically correct English, and it is unclear what this means. The examiner assumes that it was a typographical error on the part of the Applicant and requests that it be corrected.
14. Claim 6 recites the limitation, "as one of blocks performing said operating process." This is not grammatically correct English, and it is unclear what this means. The examiner assumes that it was a typographical error on the part of the Applicant and requests that it be corrected.

***Claim Rejections - 35 USC § 102***

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

16. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Onozaki, U.S. Patent No. 5,404,539.

17. Regarding claim 1, Onozaki has taught a data driven type information processing apparatus, comprising:

- a. A self-synchronous transfer control circuit (14 of Fig.4) controlling transfer and operating processes of a data packet (see Col.6 lines 25-33) including at least a destination node number, a generation number, an instruction code and data (see Col.1 lines 35-53 and Col.5 line 56 – Col.6 line 2), by a transfer request signal and a transfer acknowledge signal (see signals entering 10 and leaving 15 of Fig.4),
- b. A pipeline register (61 of Fig.9) controlled by said self-synchronous transfer control circuit, for storing said data packet (see Col.12 lines 3-43),
- c. An input/output control circuit (15 of Fig.4) controlling whether said data packet is to be circulated inside or output externally (see Col.14 lines 10-15).
- d. A data packet erasing circuit (13 of Fig.4) erasing a data packet stored in at least one of said pipeline registers and outputting other data packets to the outside (see Col.11 line 63 – Col.12 line 2 and Col.12 lines 36-54).

*Allowable Subject Matter*

18. Claims 2-8 are allowable over the prior art of record, but are rejected under 35 USC § 112 in above paragraphs 8-14. Further, claims 2-6 are objected to as being dependent upon a

*to overcome the rejection under 35 USC 112 and*  
rejected base claim, but would be allowable if rewritten in independent form including all of the  
limitations of the base claim and any intervening claims.

19. The following is a statement of reasons for the indication of allowable subject matter:  
The prior art of record has taught a data driven processor including a self-synchronous transfer  
control circuit, a pipeline register, an input/output control circuit and a data packet erasing circuit  
(see above paragraph 17). Furthermore, the prior art of record has taught the data packet erasing  
circuit erasing packets in accordance with a master reset signal (see Komori et al., Japanese  
Patent No.03029047, p.11 lines 3-18). However, the prior art of record, or any combination of  
the prior art of record, has not taught circuitry for adding a host transfer flag to a packet upon  
reset as recited in claim 2, or to store reset information within and overwrite other packet's host  
transfer flags and detecting the host transfer flags in the packets as recited in claims 7 and 8.

### ***Conclusion***

20. The prior art made of record and not relied upon is considered pertinent to applicant's  
disclosure. Applicant is reminded that in amending in response to a rejection of claims, the  
patentable novelty must be clearly shown in view of the state of the art disclosed by the  
references cited and the objections made. Applicant must also show how the amendments avoid  
such references and objections. See 37 CFR § 1.111(c).

21. Komori et al., Japanese Patent No. 03029047A, has taught a processor which includes  
packet erasing circuitry that is activated using a master reset input.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry J. O'Brien whose telephone number is (703) 305-5864. The examiner can normally be reached on Mon.-Fri. 6:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Chan can be reached on (703) 305-9712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

23. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Barry J. O'Brien  
Examiner  
Art Unit 2183

BJO  
5/10/2004



EDDIE CHAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100